Courses for MSHA and the Mining Industry



U.S. Department of Labor Mine Safety and Health Administration National Mine Health and Safety Academy

FY 2003



Dedicated to the Health and Safety of the Nation's Miners

Visit our website at http://www.msha.gov



Courses for MSHA and the Mining Industry



U.S. Department of Labor Elaine L. Chao Secretary

Mine Safety and Health Administration Dave D. Lauriski Assistant Secretary

FY 2003

THIS PAGE INTENTIONALLY LEFT BLANK

CONTENTS

	Page
Courses and Seminars/Workshops By Topic	iii
Welcome	1
History	2
The Academy's Purpose and Goal	2
Academy Organization	3
Academic Programs	7
Academic Life	9
Student Life	11
Fees and Billing	13
Travel to the Academy	15
Training Courses	17
Metal/Nonmetal Inspection Courses	
Journeyman Training	19
Metal/Nonmetal Mine Compliance Specialists Retraining	33
Metal/Nonmetal Entry Level Compliance Specialists Training	34
Coal Inspection Courses	
Journeyman Training	37
Coal Mine Compliance Specialists Retraining	57
Coal Entry Level Compliance Specialists Training	58
Computer Training Schedule	61

	Page
Training Courses (continued)	
Certification and Qualification Courses	71
General Courses for MSHA and the Mining Industry	. 77
Seminars/Workshops for MSHA and the Mining Industry	. 97
Technical Specialists Training	107
Supervisory Training (Coal and Metal/Nonmetal)	108
Schedule of Courses - Alphabetically	109
Schedule of Courses - By Date	113
Suggestion Form for New Courses	121
Enrollment Form	123
Other Available Catalogs	125

Courses and Seminars/Workshops by Topic

P	age
ACCIDENT PREVENTION AND INVESTIGATION COURSES	
Accident Prevention Techniques	78
Mine Accident Investigation and Report Writing	48
Mine Accident Investigation Techniques	88
TapRooT® System Accident/Incident	
Investigation Training	53
CERTIFICATION/QUALIFICATION COURSES	
Annual Retraining for Impoundment Qualification	72
Qualification for Impoundment Inspection	73
Respirable Coal Mine Dust Sampler Calibration/Maintenance Certification	74
Respirable Coal Mine Dust Sampling Certification	75
COMPUTER COURSES	
Inspector's Portable Application for Laptops (IPAL) Review	
Coal	
Microsoft Access 2002 – Basic	68
Microsoft Access 2002 – Intermediate	69
Microsoft Access 2002 – Advanced	70
Microsoft Excel 2002 – Basic	66
Microsoft Excel 2002 – Intermediate	67
Microsoft PowerPoint 2002	65

Page
COMPUTER COURSES (continued)
Microsoft Windows 2000/Microsoft Outlook 2002 63
Microsoft Word 2002
ELECTRICAL COURSES
Electrical Hazards
Electrical Safety for Coal Miners 42, 80
Electrical Safety for Metal/Nonmetal Miners 81
INDUSTRIAL HYGIENE COURSES
Hazard Communication (HazCom) 82
Health Hazards
Industrial Hygiene
Industrial Hygiene: Sampling for Respirable Silica Dust and Noise
Intermediate Toxicology86
Noise Hazards, Regulation, and Control 49, 92
Respirable Dust and Silica Sampling and Control 93
INSTRUCTOR COURSES
Instructor Training Workshop (Part 48)85
MINE RESCUE TRAINING COURSES
Mine Rescue Training
MINE SAFETY COURSES
Advanced Ventilation/Bleeder and Gob
Ventilation Systems
Blasting (Surface)
Blasting (Underground)22
Coal Impoundment and Refuse Pile Inspection 41
Explosion Prevention

	Page
WINE SAFETY COURSES (continued)	
Ground Control Hazards	24
Haulage (Surface)	25, 44
Hoists and Elevators	83
Introduction to Mining	87
Longwall Safety	47
Mine Construction, Maintenance, and Repairs Saf	ety 89
Mine Elevator Inspection Program Training Module I	90
Roof Control for Miners	50
Roof Control Seminar	51, 102
Surface Facilities and Coal Preparation	52, 94
Tailings Dam and Waste Pile Inspection - Metal/Nonmetal	29
Underground Diesel Equipment/Ventilation	
Underground Haulage, Transportation,	
and Machinery	56, 95
Underground Ventilation for Metal and Nonmeta	ıl
Mines	32
SEMINARS/WORKSHOPS	
Accident Investigation Retraining Seminar	98
Mine Blasting Safety and Application Seminar	99
Mine Construction, Maintenance, and Repairs Saf	
Workshop	
Mine Fire Control Seminar	
Roof Control Seminar	
Safe Practices Conference	
Surface Haulage Safety Seminar	
TRAM/National Mine Instructors Seminar	105

THIS PAGE INTENTIONALLY LEFT BLANK

WELCOME

Welcome to the 2003 edition of Courses for MSHA and the Mining Industry.

Our Nation's mines produce more material than ever before. Sophisticated machinery and equipment allow miners to work in areas that are often complex and dangerous. Mining technology changes constantly and every mine is unique. This is why health and safety compliance inspections, technical and engineering assistance, and education and training are such important elements in ensuring a safe workplace. These are the three elements of MSHA's triangle of success.

Up-to-date and practical health and safety training is vital since mining occurs in a hazardous, ever-changing environment where there is little room for error.

The National Mine Health and Safety Academy, in Beaver, West Virginia, is the world's largest institution devoted to health and safety in mining. It is a central training facility for Federal mine health and safety compliance specialists, mine safety professionals, other government agencies, the mining industry, and labor.

Most of the Academy's courses are open to participants from throughout the mining community. Classes are taught by Academy faculty and associate instructors and specialists from the mining industry, trade associations, colleges and universities, manufacturers, and other government agencies.

Whatever your interest in mine health and safety, you should find useful and practical training at the National Mine Health and Safety Academy.

HISTORY

Protecting those who work in our Nation's mines requires an awareness and understanding of the conditions that endanger their health and safety.

This problem was recognized more than 135 years ago when a proposal for a Federal mining bureau was submitted to Congress. It was not until nearly five decades later that a series of deadly mine explosions led to passage of the Organic Act of 1910. That act created the Bureau of Mines.

Laws passed over the next 60 years enlarged the scope of legislation aimed at reducing mining hazards. The Federal Coal Mine Health and Safety Act of 1969 contained provisions for the training of Federal mine compliance specialists, as well as establishing education and training for states, mine operators, and miners. The Federal Mine Health and Safety Act of 1977 broadened these provisions to include metal and nonmetal mining. The National Mine Health and Safety Academy exists to meet the requirements of the 1977 Act.

THE ACADEMY'S PURPOSE AND GOAL

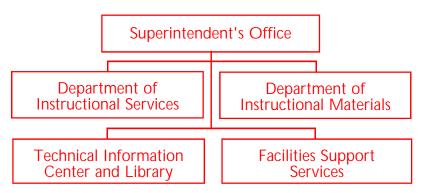
The purpose of the Academy is to design, develop, and conduct instructional programs that will assist in government, industry, and labor efforts to reduce injuries, illnesses, and fatalities in the mineral industries.

All of our programs, seminars, and courses are prepared with one idea in mind – the improvement of health and safety conditions in mines through education and training. This is our goal. Our success will be measured by the extent to which mine accidents and unhealthful conditions are reduced in future years.

ACADEMY ORGANIZATION

The National Mine Health and Safety Academy is supported by the Superintendent's Office with the help of four major units:

- g Department of Instructional Services
- g Department of Instructional Materials
- g Facilities Support Services
- g Technical Information Center and Library



The **Superintendent** is responsible for the immediate management and direction of the Academy and for coordination of all training programs.

The **Department of Instructional Services** conducts training classes for coal and metal/nonmetal mine compliance specialists and other mine health and safety professionals. The department also develops, revises, and evaluates course materials and other programs used to train persons from MSHA and all segments of the mining community. In addition, the department administers individualized study materials for nonresident students.

The **Department of Instructional Materials** researches and develops audiovisual and graphic items to provide support to the mining industry. The department also oversees printing, storage, and distribution of Academy-produced training materials.

Facilities Support Services aids all Academy programs through coordination of student services, scheduling, record-keeping, physical plant maintenance, budget and procurement, property management, wellness, and contract administration.

The **Technical Information Center and Library** maintains books, journals, newspapers, technical reports, audiovisual materials and other information related to mine health and safety. The library gives Academy students and clients immediate and easy access to information sources that can improve the health and safety of miners worldwide.

The Academy Campus

The Academy complex includes classrooms and laboratories to accommodate 600 students and Residence Hall space for 174 people.

The **Classroom Building** includes fourteen classrooms and ten laboratories.

The **Technical Information Center and Library** is in the Classroom Building.

The **Administration Building** contains faculty and staff offices, the auditorium, cafeteria, and student store.

The **Mine Machinery Laboratory** gives students an opportunity for hands-on health and safety training on different mining and electrical systems.

The **Mine Simulation Laboratory** is an aboveground simulated mine. Here, students can learn about mine ventilation, mine rescue, mine emergency preparedness, and firefighting.

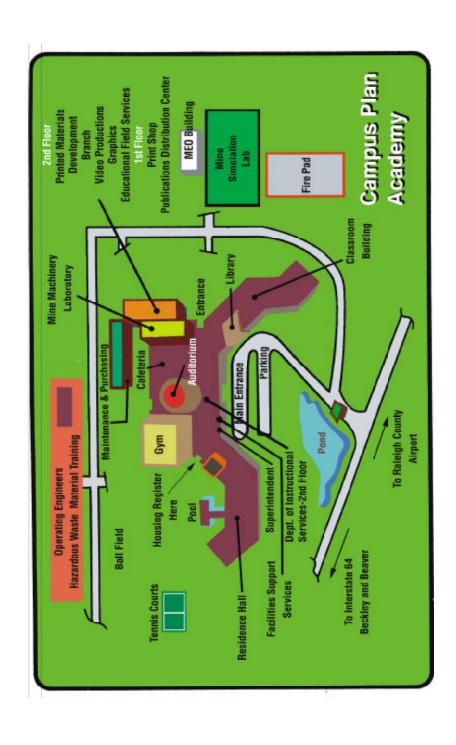
The **Mine Emergency Building** is adjacent to the Mine Simulation Laboratory. It houses mine emergency vehicles and a mine rescue station for MSHA's Mine Emergency Units.

The **Gymnasium** is available for wellness training and leisure time activities. Other wellness facilities at the Academy include tennis courts, a racquetball court, swimming pool, jogging trail, and athletic field.

The **Maintenance and Equipment Building** is used to maintain Academy equipment.

The **Publications Distribution Center** houses the print shop, supply and warehouse facilities, and the Department of Instructional Materials.

The **Residence Hall** has 174 units. Each room in the residence hall has a queen-size bed or two twin beds, a private bath, telephone, desk, storage area, refrigerator, coffee pot, and iron and ironing board.



ACADEMIC PROGRAMS

MSHA Training

All newly hired MSHA compliance specialists receive entrylevel training. This training covers technical aspects of mine inspection and additional topics such as effective communications and professionalism.

Entry-level coal mine compliance specialists take eight modules of instruction (25 weeks total) at the Academy with on-the-job (OJT) sessions in the field between modules.

Entry-level metal/nonmetal mine compliance specialists' training includes seven modules of instruction (23 weeks total) at the Academy with OJT sessions in the field between modules.

Journeyman training presents up-to-date technical and regulatory information to journeyman compliance specialists to help them ensure that the mining community is served most effectively. The Academy also presents courses to provide journeymen with more in-depth training on special subjects.

Technical Specialists receive training in a variety of subjects so that they remain informed regarding current technical and regulatory information.

MSHA supervisors receive a two-week training program every two years. This course reviews leadership, professional and communication skills.

Administrative and clerical personnel receive an annual one-week training program to enhance their ability to assist MSHA personnel and clients.

The Academy offers computer training on various software applications to MSHA personnel and others from the mining industry and other government agencies.

Training for Industry

All Academy courses are open to participants from throughout the mining community. These programs are taught by Academy and visiting outside instructors and specialists from the mining industry, trade associations, colleges and universities, manufacturers, and other government agencies. Seminars, workshops and conferences are offered throughout the year, both at the Academy and at sites throughout the country.

Many courses provide certification or qualification to persons who take mandated examinations.

Examples of other courses available to the industry are Electrical Safety for Miners, Hoists and Elevators, Instructor Training Workshop (Part 48), Construction and Repairs Safety, Mine Elevator Inspection Program Training, Noise Hazards, Regulation and Control, and Surface Facilities and Coal Preparation.

Training activities in the Mine Simulation Laboratory cover mine rescue, fire fighting, mine emergency response, simulated inspections, ventilation, roof control, haulage, annual refresher subjects, supervisory training, and mine examination. Students come from MSHA, other federal and state agencies, industry, labor organizations, and international mining delegations.

ACADEMIC LIFE

Class Attendance

Classes are informal and dress is casual. Most of our laboratory classes include hands-on activities or outside fieldwork.

A typical class day begins at 8:00 a.m. and ends at 4:00 p.m. All other day classes end by 5:00 p.m., unless otherwise scheduled.

Absences from class are approved for personal illnesses, emergencies, or death in a student's family. Students notify their supervisor and instructors, and make up work assigned while absent.

Grading System

The Academy uses a grading system for entry-level (coal and metal/nonmetal) courses of study and gives examinations in these classes. These grades are recorded, and students are informed of their progress through periodic grade reports.

Units of Credit/Certificates of Participation

Students receive Continuing Education Units (CEUs) upon completion of an Academy program. One CEU is 10 contact hours of participation in an educational experience. The Academy does not grant degrees, but CEUs may be converted into hours of credit at other institutions.

Students who satisfy the Academy criteria for successful completion of any course of study receive a Certificate of Completion documenting the course title, date, and CEUs.

College Credit for Academy Courses

Compliance specialists can earn an Associate of Applied Science Degree in Occupational Development: Mine Inspec-

tion from the Community and Technical College of Marshall University, Huntington, West Virginia. This program is a cooperative effort among MSHA, the National Council of Field Labor Locals, the U.S. Department of Labor's Bureau of Apprenticeship and Training, and the university. Marshall will award 43 credit hours to students who complete the equivalence of the mine inspector apprentice requirements. These credits are applied to successful completion of the classroom and on-the-job training parts of Entry Level Mine Inspector training. An additional 22 hours of general education credits are also required.

Academic Dishonesty

The student can be disciplined or dismissed from the Academy for cheating, dishonesty, plagiarism, or knowingly furnishing false information to the Academy.

Withdrawal

The student may withdraw from an Academy program without penalty because of injury or other extenuating circumstances. If you withdraw, you will not receive credit for the courses of study in which you were enrolled.

Transcripts

You may request (in writing) a copy of your academic record. Your request must include your full name, and Social Security number. Submit your request to:

> National Mine Health and Safety Academy Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

> > **FAX:** (304) 256-3251

2000

STUDENT LIFE

Food Service and Student Store

Academy food service offers complete meals in a cafeteria setting. You may choose from a selection of freshly prepared entrees and desserts with a full range of beverages available to complement your meal. There is also a made-to-order deli and a salad bar. In addition, heart-healthy and vegetarian selections are available. Academy food service personnel can also assist anyone who has special dietary needs. A cash-only snack bar is open after 5:00 p.m. If you are an MSHA employee, you will receive a meal card when you check in. Present this card to the cashier after you go through the serving line. Non-MSHA students who are in residence must pay for lodging and meals.

The student store, located next to the cafeteria, has a wide variety of sundries, souvenirs, and gifts.

For Your Health and Safety

Please observe all posted speed limits and all traffic and parking signs.

If you need emergency medical attention, please dial "O" or ext. 555 and request medical assistance. Academy personnel will take you to a medical facility in an Academy vehicle or arrange for an ambulance. If there is no answer, dial 9-911 (Raleigh County Emergency Operations Center) and request medical assistance.

Assistance in completing accident health insurance claim forms for Federal students may be obtained from your class coordinator or a responsible staff person on duty after normal duty hours.

You play an important part in accident prevention at the Academy. Should you see an actual or potential safety hazard, please report it to an instructor, class coordinator, or any Academy staff person.

Mail

You can send or receive mail (Monday through Friday) at the Residence Hall registration desk. Our mailing address is:

National Mine Health and Safety Academy 1301 Airport Road Beaver, WV 25813-9426

Vehicles

Students are required to register vehicles with security personnel at the main entrance to Academy grounds. You will receive a color-coded parking permit that allows you to park in a designated area. There is ample, well-lighted, and secure parking at the Academy.

FEES AND BILLING

Academy fees are reviewed periodically and subject to change.

Tuition

All students attending Academy courses, except employees of Federal, State, or local governments, and persons attending a program supported through an MSHA State Grant or otherwise provided for in MSHA policy, are charged tuition.

The tuition amount indicated by the course announcement is due on arrival by check, money order, or credit card (VISA and MasterCard) payable to MSHA Finance. We regret that we cannot accept cash. Billing is possible with a written request to the Academy's Student Services Branch. If tuition is submitted in advance, written notification of withdrawal to the Student Services Branch is required to process a full refund.

Lodging

All persons in residence at the Academy, except MSHA personnel, other persons performing a direct service for MSHA, and persons attending a program supported through an MSHA State Grant, are charged for lodging.

The lodging fee is \$41.00 per person per day for a single room and \$54.00 per day for a double room. Note that these fees are reviewed at the end of each fiscal year (September 30) and may be changed at that time. Lodging fees are due on arrival by credit card (VISA and MasterCard) or check/money order payable to MSHA Finance. We regret that **we cannot accept cash.** Billing is possible with a written request to the Student Services Branch.

Persons staying at the Academy may have their spouses and immediate family as guests provided all appropriate fees are paid on arrival. Advance reservations are required.

If you have special needs, please contact Student Services before your arrival.

Meals

Participants who pay for Academy lodging may register for meals when they check in. Students staying in the dorm are normally required to purchase a meal ticket for breakfast and lunch at the Academy. Dinner is optional. Prices are:

Breakfast	\$8.00
Lunch	\$10.00
Dinner	\$13.00

Note that these fees are reviewed at the end of each fiscal year (September 30) and may be changed at that time.

Participants paying for their meals in the cafeteria may do so by cash, major credit card, or check/money order payable to the West Virginia Society for the Blind.

TRAVEL TO THE ACADEMY

Located on a plateau in southern West Virginia, the Academy blends into its Appalachian mountain setting. Scenic vistas and wildlife greet travelers to the Academy and students experience a restful environment.

Several options are available to travelers:

By Air



Beckley, West Virginia – Commercial airlines serve the Raleigh County Memorial Airport - located 1 mile from the Academy. Free transportation is furnished to the Academy by using the courtesy phone (which dials automatically when you lift the receiver) located in the airport lobby. If there is no answer, call 256-3100.

Charleston, West Virginia - Commercial airlines serve the Yeager Airport, located 65 miles north of the Academy. Rental cars are available at the airport.

Lewisburg, West Virginia - Commercial airlines serve the Greenbrier Valley Airport, located 47 miles east of the Academy. Rental cars, taxis, and limousines are available.

By Train



AMTRAK provides tri-weekly service to and from Prince, West Virginia - located 16 miles from the Academy. Taxi service meets all trains.

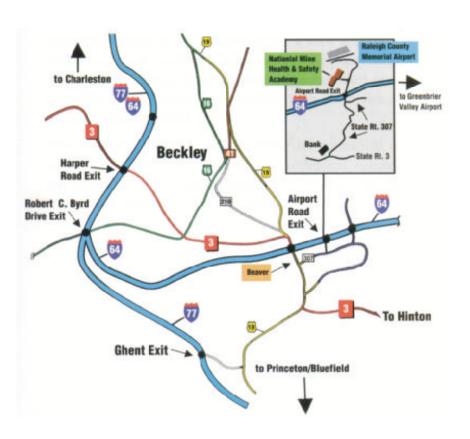


Daily Greyhound service is available to and from Beckley; the station is located 8 miles from the Academy in downtown Beckley. Taxi service is available.



See Route Map to the Academy on page 16.

Route Map to the Academy



K Arriving from the NORTH

- **g** When using U.S. 19 South, go to and follow I-77 South, exit at I-64 East
- g Follow I-64 to EXIT 125B, Airport Road
- **g** Academy is 1 mile on left

K Arriving from the SOUTH

- G When using I-77 North, exit and follow I-64 East
 G Use EXIT 125B, Airport Road
 G Academy is 1 mile on left

K Arriving from the EAST

- ${f g}$ When using I-64 West, use Exit 125, Beaver/Airport Road

 g Turn RIGHT at bottom of ramp
- **g** Academy is 1 mile on left

K Arriving from the WEST

- **9** When using I-64 East, use Exit 125B, Airport Road
- g Academy is 1 mile on left

TRAINING COURSES

The National Mine Health and Safety Academy develops and presents courses of study which cover a wide spectrum of mine health and safety subjects. These courses of study address training needs of miners, compliance specialists, government and industry personnel, as well as others concerned with the health and safety of our Nation's miners.

The courses described in this catalog are scheduled or can be scheduled during the coming year. Additional courses can be scheduled to meet specific needs of the miners, mine operators, and mine health and safety specialists.

THIS PAGE INTENTIONALLY LEFT BLANK

METAL/NONMETAL INSPECTION COURSES

Journeyman Training

All metal and nonmetal compliance specialists will attend one week of training per year, or two weeks every other year. The training will be in a seminar format with subjects in various specialty areas. The MSHA Training Committee has established a working group to determine the training needs of metal and nonmetal journeyman compliance specialists. A list of dates and subjects are on page 33.

The additional courses described in this section are designed for journeyman metal and nonmetal mine compliance specialists and Federal, state, mining industry, and labor organization personnel.

Course dates are given at the bottom of the course description.



Courses marked by this icon may be held at your worksite. If your company or or ganization would like any of these courses

presented onsite, contact Jan Keaton at (304) 256-3234. The course will then be scheduled.



If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Jan Keaton at (304) 256-3234.

To Enroll Contact;

National Mine Health and Safety Academy Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252 **FAX:** (304) 256-3251

BLASTING (SURFACE)



This course discusses the characteristics and use of explosives and blasting agents. It is designed to teach blasting standards in accordance with Independent Makers of Explosives (IME) guidelines and the Code of Federal Regulations (30 CFR). The course is structured for MSHA metal/nonmetal and industry personnel.

Contents:

- g Definitions
- g Transportation and Storage of Explosives and Blasting Agents
- g Detonation Units
- **g** Misfires
- g Electric and Nonelectric Blasting Operations
- g Explosives Hazards and Accidents
- g Safe Blasting Principles (Work Procedures and Blast Plans)
- g Initiation Systems

Technical Coordinator: Wayne L. Lively

> **Course Length:** 3 days

Tuition: \$215.00

January 7-9, 2003 **Dates:**





This course discusses the characteristics and use of explosives and blasting agents. It is specifically designed to teach blasting practices used in underground metal/nonmetal mines. The course will discuss the standards and guidelines specified by Independent Makers of Explosives (IME), Alcohol, Tobacco and Firearms (ATF), and the Code of Federal Regulations (30 CFR). The course is structured for MSHA as well as industry.

Contents:

- **q** Definitions
- g Underground Storage Requirements
- g Underground Transportation and Use of Explosives and Blasting Agents
- g Detonation Units
- g Explosive Product Display and Discussion
- g Misfires
- g Electric and Nonelectric Blasting Operations
- g Explosives Hazards and Accident Discussion
- g Safe Blasting Principles (Underground Work Procedures, Blast Plans, Security Measures, and Prudent Engineering Practices)
- g Initiation Systems

Technical Coordinator: Wayne L. Lively

Course Length: 2 days **Tuition:** \$143.00

Dates: Available upon request

ELECTRICAL HAZARDS



This course is designed to provide practical methods and techniques for the identification of electrical hazards and the appropriate enforcement actions to be taken. This course is designed for MSHA metal/nonmetal inspection personnel with little or no electrical expertise.

Contents:

- g Basic Electrical Theory
- g Basic Circuitry
- **g** Grounding
- g Power Distribution Systems
- g Inspection of Electrical Equipment
- g Regulations and Policies
- g Hazard Recognition
- g Citations and Orders
- g Personal Safety

NOTE: This course is not for Electrical Specialists.

Courses for Electrical Specialists are offered under Technical Specialists Training on page 107.

Technical Coordinator: Roy Milam

Course Length: 3 days

Tuition: \$215.00

Dates: November 5-7, 2002

January 14-16, 2003

GROUND CONTROL HAZARDS



This course will focus on the Code of Federal Regulations (30 CFR) requirements related to ground control at surface and underground metal and nonmetal mines. The course provides techniques for the recognition and correction of ground control hazards.

Contents:

- **g** Highwalls
- g Stockpiles
- g Basic Geology
- g Rock Fixtures
- g Surface Structures
- g Underground Support
- g Hazard Recognition
- **g** Compliance Determination

Technical Coordinator: Tom Bonifacio

Course Length: 3 days **Tuition:** \$215.00

Dates: November 19-21, 2002

HAULAGE (SURFACE)



Haulage accidents have been the leading cause of fatal accidents for several years at our Nation's surface mines. This course teaches how to recognize the hazards that may exist in surface haulage, and is taught by former surface coal and metal/nonmetal mine compliance specialists.

Contents:

- g Compliance Determination of 30 CFR Parts 56/57.9000 and 56/57.14000
- g Inspection Procedures for Surface Mining Equipment
- g Use of Signs and Traffic Control on Mine Property
- g Haul Road Design
- g Brake Systems
- g New Technology (video cameras)
- g Rollover Protective Structures (ROPS)
- g Falling Object Protective Structures (FOPS)
- g Tire and Rim Safety
- g Overview of Fatal Accidents

Technical Coordinator: Tom Bonifacio

Course Length: 3 days

Tuition: \$215.00

Dates: January 7-9, 2003

March 4-6, 2003

HEALTH HAZARDS



This course is designed for metal and nonmetal safety and health compliance specialists. **Other interested individuals should contact the technical coordinator.** Class room activities and laboratory exercises cover the recognition and evaluation of health hazards and how to determine enforcement responsibilities. Based on hypothetical health hazard situations, students will be required to write the appropriate health citations/orders and will be required to defend their decisions. The final activity will involve a simulated court room exercise where the students will role play MSHA and industry personnel litigating these citations/orders.

Contents:

- **q** Airborne Contaminants
- g Noise and Other Physical Agents
- g Sampling and Detecting Devices
- g Personal Protective Equipment
- g Confined Spaces
- g Ergonomics
- **g** Computer Programs Metal/Nonmetal Health and Toxicity Files
- g Hazard Controls

NOTE: Metal/nonmetal compliance specialists will need to bring their Metal/Nonmetal Health Handbook.

Technical Coordinator: William D. McKinney

Course Length: 3 days

Tuition: \$215.00

Dates: Scheduled upon request

INSPECTOR'S PORTABLE APPLICATIONS FOR LAPTOPS (IPAL) REVIEW - METAL/NONMETAL

The IPAL review course is designed for MSHA metal/non-metal compliance specialists. The course reviews the latest version of the IPAL Program. The course also covers the fundamentals of the computer operating system, troubleshooting, and how to use the computer to reference resource material stored in the computer.

Contents:

- g IPAL (In spector's Portable Applications for Laptops)
- g Reference Material (30 CFR, Mine Act, PPM, Policy Information Letters, and Program Information Bulletins)
- g Basic Troubleshooting and Maintenance of the Laptop Computer and the IPAL Program
- g Using Citrix Metaframe

Technical Coordinators: Betty Hogan

Naomi Hughes

Course Length: 2 days

Tuition: None

Dates: March 11-12, 2003

Additional courses can be scheduled upon request

MINE ACCIDENT INVESTIGATION AND REPORT WRITING

This course is available for coal, metal/nonmetal, labor and industry accident investigators. Other interested individuals should contact the Technical Coordinator. The course reviews basic guidelines, procedures, and techniques used to investigate and report on accidents and other incidents involving health and safety in the mining industry.

Classroom activities and discussions cover reasons for accident investigations, the investigative process, data collection, accident reconstruction, proper analysis for corrective actions, and completion of investigative reports following relevant MSHA guidelines and policies. At the conclusion of the class, in a practical exercise, students conduct a simulated accident investigation and prepare a report. **Students should bring their laptop computers.**

Contents:

- g Overview of Accident Investigation
- g Pre-Investigation Activities
- g Accident Reconstruction
- g Photography/Sketching
- g Interviewing Techniques
- g Data Collection and Evaluation
- g Developing Conclusions and Recommendations
- g Report Writing
- **g** TapRooT®

Technical Coordinators: Kenneth M. Scott

Don Gibson

Course Length: 8 days

Tuition: \$572.00

Dates: December 3-12, 2002

March 18-27, 2003 May 13-22, 2003 July 15-24, 2003

September 16-25, 2003

TAILINGS DAM AND WASTE PILE INSPECTION - METAL/NONMETAL

This course will introduce the student to the general safety considerations for the design, construction, maintenance, and inspection of dams and waste piles.

Contents:

- g Typical Geotechnical Investigations
- g Foundation Analysis
- g Breakthrough Potential Analysis
- g Stability Analysis and Safety Factors
- g Hydrologic and Hydraulic Considerations
- g Construction Monitoring
- g Identification of Deficiencies
- g General Methods of Remediation
- **g** Applicable Regulations

Technical Coordinator: Clifford F. Lindsay

Course Length: 3 days

Tuition: \$215.00

Dates: November 19-21, 2002

TapRooT® SYSTEM ACCIDENT/INCIDENT INVESTIGATION TRAINING

This course is for MSHA coal, metal/nonmetal, technical support, or other MSHA employees who are involved in mine accident/incident investigations. The TapRooT® System provides a methodology to lead an investigator through the techniques and steps used to perform an in-depth investigation of an incident's root causes. Training focuses on developing a flow diagram of the events and conditions leading up to the undesired incident, evaluating each condition, identifying causal factors, and evaluating each factor as to root cause. The course will include training on Systems Improvement's SnapCharT® and Root Cause Tree® software.

The SnapCharT® software is a graphic presentation of the sequence of events identified and discovered during the physical onsite investigation. A SnapCharT® helps the investigator to organize the information gathered and identify the contributing factors that lead to the incident. From this chart the investigator can identify causal factors. In addition, it helps the investigator identify holes and inconsistencies in the information gathered during the investigation.

The Root Cause Tree® software takes over where a SnapCharT® stops. While the SnapCharT® looks at what happened and the contributing factors involved, the Root Cause Tree® looks at why it happened. The Root Cause Tree® provides the investigator with a fairly comprehensive list of the root causes that should be considered for every incident.

Students should bring their laptop computers.

Contents:

- g Equipment Failure Analysis including:
 - Design Failures
 - ' Defective Parts
 - ' Preventive/Predictive Maintenance

$\begin{tabular}{ll} \textbf{TapRooT} @ \begin{tabular}{ll} \textbf{SYSTEM ACCIDENT/INCIDENT} \\ \textbf{INVESTIGATION TRAINING} \end{tabular} \begin{tabular}{ll} \textbf{Continued.} \end{tabular}$

g Human Performance Difficulty Analysis including:

- ' Procedures
- ' Training
- ' Quality Control
- ' Communications
- ' Management Systems
- ' Human Engineering
- Work Direction

Technical Coordinators: Kenneth M. Scott

Don Gibson Roy Milam Scott Mandeville

Course Length: 3 days

Tuition: \$215.00

Dates: January 14-16, 2003

April 22-24, 2003 June 24-26, 2003





This course is designed to as sist metal/nonmetal miners in the recognition and evaluation of health hazards and effective ventilation methods to eliminate these hazards. The course will provide instruction in the following areas.

Contents:

- g Airborne Contaminants
- g Sampling and Detecting Devices
- g Confined Spaces
- g Hazard Controls
- **g** Mine Maps
- g Recognition of Areas That May Have Poor Air Quality
- g Measuring Air Quantities
- g Review of Ventilation Regulations

Technical Coordinators: Scott Mandeville

Rocky McKinney

Course Length: 2 days

Tuition: \$143.00

Dates: Available upon request

METAL/NONMETAL MINE COMPLIANCE SPECIALISTS RETRAINING

Metal and nonmetal compliance specialists are required to receive a minimum of two weeks of training every two years.

Listed below are the dates and subjects of the training sessions scheduled at the Academy.

SCHEDULE

December 10-19, 2002 January 28 - February 6, 2003 April 8-17, 2003

SUBJECTS

g Surface Haulage	g Citations and Order
g Professionalism	Writing
g Part 46	g Interviewing and Notetaking
g Part 45	e
g Ground Control	g Accident Reduction Program
g Effective	g Hoisting
Communication	g Health Procedures
g Fall Protection	g Part 62
G Crane Safety	g Asbestos Training
g Electrical Hazards	g Laptop Troubleshooting
g Hazard Complaints	g Basic Photography
9	g Part 50 Audits

METAL/NONMETAL ENTRY LEVEL COMPLIANCE SPECIALISTS TRAINING

The courses listed in this section are designed for entry level mine compliance specialists. However, they may be attended by Federal, state, mining industry, and labor organization personnel.

Training dates are given with each module.

Need More Info? Contact;

Jan Keaton
Department of Instructional Services
National Mine Health and Safety Academy
1301 Airport Road
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3234 **FAX:** (304) 256-3247 **E-MAIL:** keaton-janice@msha.gov

METAL/NONMETAL CURRICULUM (MODULES I-VII)

The following chart shows the required core courses for entry level compliance specialists.

Wellness Training is scheduled daily for each module. Laptop computer and printer required for all modules.

Module I (4 weeks)

Orientation
Citations and Orders/
Notetaking
Diversity
Standards of Conduct

Professionalism Law Regulation and Policy/Math Basic Laptop Communications Effective Citation Writing Introduction to MSHA

Module II (4 weeks)

Inspection Procedures Surface Haulage Ground Control Material Storage Interviewing Techniques Inspector's Portable Applications for Laptops (IPAL)

Module III (3 weeks)

Conference Communications/Simulated Inspection

Accident Investigation Electricity Industrial Hygiene I Citations and Orders Review (S&S)

Module IV (3 weeks)

Industrial Hygiene II Citation and Orders Review [104(d)] Drilling and Blasting Industrial Ventilation (in conjunction with IH)

Employee Health and Safety/Safety Talks I

Module V (3 weeks)

Citations and Orders Review [107(a)] Parts 48 and 46 TapRooT® Courtroom Procedures Gas Detecting Devices Safety Programs IPAL Review Tailings Part 50

Module VI (3 weeks)

Introduction to Special Investigations Underground Ventilation Fire Protection Permissibility Citations and Orders Review [104(g) Part 46/48] Personal Protective Equipment Structural Safety

Compressed Air Unique Processes Repeat Violation Reduction Program (RVRP)

Module VII (3 weeks)

Citations and Orders Review [103(k) Part 50] Mine Rescue/Part 49 Tech Support Briefing Safety Talks II Hoisting/Cranes Toxicology IPAL Review Citations and Orders Review [103(f)/103(g)] Review/Graduation

METAL/NONMETAL ENTRY LEVEL COMPLIANCE SPECIALIST TRAINING

GROUP GG

Module V	October 21 - November 8, 2002	(3 weeks)
Module VI	December 2, - December 20, 2002	(3 weeks)
Module VII	January 27 - February 14, 2003	(3 weeks)

GROUP HH

Module I	July 22 - August 16, 2002	(4 weeks)
Module II	September 16 - October 11, 2002	(4 weeks)
Module III	December 2 - December 20, 2002	(3 weeks)
Module IV	January 27 - February 14, 2003	(3 weeks)
Module V	March 17 - April 4, 2003	(3 weeks)
Module VI	April 28 - May 16, 2003	(3 weeks)
Module VII	July 7 - July 25, 2003	(3 weeks)

GROUP II

Module I	October 21 - November 8, 2002	(3 weeks)
Module II	December 2 - December 20, 2002	(3 weeks)
Module III	January 27 - February 14, 2003	(3 weeks)
Module IV	March 10 - April 4, 2003	(4 weeks)
Module V	April 28 - May 16, 2003	(3 weeks)
Module VI	June 2 - June 27, 2003	(4 weeks)
Module VII	July 21 - August 8, 2003	(3 weeks)

COAL INSPECTION COURSES

Journeyman Training

All coal compliance specialists will attend one week of training per year, or two weeks every other year. The training will be in a seminar format with subjects in various specialty areas. The MSHA Training Committee has established two working groups (underground and surface) to determine the training needs of coal mine journeyman compliance specialists. A list of dates and subjects can be found on page 57.

The additional courses described in this section are designed for journeyman coal mine compliance specialists and Federal, state, mining industry, and labor organization personnel.

Course dates are given at the bottom of the course description.



Courses marked by this icon may be held at your worksite. If your company or organization would like any of these courses

presented onsite, contact Jan Keaton at (304) 256-3234. The course will then be scheduled.



If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Jan Keaton at (304) 256-3234.

To Enroll Contact;

National Mine Health and Safety Academy Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252 **FAX:** (304) 256-3251



This advanced ventilation course is specifically designed for ventilation specialists, safety compliance specialists, supervisors, and mine managers. It will improve their understanding and working knowledge in ventilation systems for underground mining. This course will provide detailed discussion in the following areas.

Contents:

- g Ventilation Design
- **g** Plan Approval
- g Regulatory Compliance
- **g** Maintenance
- g Inspection/Examination
- g Evaluation of Ventilation Systems
- **g** De-gasification

Technical Coordinator: Scott Mandeville

Course Length: 2 days **Tuition:** \$143.00

Dates: January 7-8, 2003

BLASTING (SURFACE)



This course discusses the characteristics and use of explosives and blasting agents. It is designed to teach blasting standards in accordance with Independent Makers of Explosives (IME) guidelines and the Code of Federal Regulations (30 CFR). The course is structured for MSHA surface coal compliance specialists and industry personnel.

Contents:

- **g** Definitions
- **g** Transportation and Storage of Explosives and Blasting Agents
- g Detonation Units
- g Misfires
- g Electric and Nonelectric Blasting Operations
- g Explosives Hazards and Accidents
- **g** Safe Blasting Principles (Work Procedures and Blast Plans)
- g Initiation Systems

Technical Coordinator: Wayne L. Lively

Course Length: 3 days **Tuition:** \$215.00

Dates: August 26-28, 2003

COAL IMPOUNDMENT AND REFUSE PILE INSPECTION

This course will introduce the student to the general safety considerations for the design, construction, maintenance, and inspection of dams and waste piles.

Contents:

- g Typical Geotechnical Investigations
- g Foundation Analysis
- g Breakthrough Potential Analysis
- g Stability Analysis and Safety Factors
- g Hydrologic and Hydraulic Considerations
- g Construction Monitoring
- g Identification of Deficiencies
- g General Methods of Remediation
- **g** Applicable Regulations

Technical Coordinator: Clifford F. Lindsay

Course Length: 3 days

Tuition: \$215.00

Dates: March 11-13, 2003

June 24-26, 2003 August 19-21, 2003



This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to be taken. The course is for coal inspection personnel with limited or no electrical expertise.

Contents:

- g Basic Electrical Theory
- g Basic Circuitry
- g Hazard Recognition
- **g** Grounding
- g Power Distribution Systems
- g Regulations and Policies
- g Personal Safety
- **g** Citations and Orders
- g Inspection of Electrical Equipment
- **g** Permissibility

NOTE: This course is not intended for Electrical Specialists.

Technical Coordinator: Roy Milam

Course Length: 3 days

Tuition: \$215.00

Dates: April 22-24, 2003





This course is designed to provide methods and techniques for identification of explosion hazards, prevention of such hazards, and appropriate actions to be taken when a hazard is detected. The course is structured for MSHA coal compliance specialists and industry personnel.

Contents:

- g Permissibility
- **g** Recognizing Potential Hazards
- g Proper Rock Dusting Techniques and Sampling Procedures
- g Recent Events
- **g** Effective Workplace Examinations

Technical Coordinator: Scott Mandeville

Course Length: 2 Days **Tuition:** \$143.00

Dates: January 14-15, 2003

HAULAGE (SURFACE)



Haulage accidents have been the highest category of fatal accidents for several years at our Nation's surface mines. This course teaches how to recognize the hazards that may exist in surface haulage, and is taught by former surface coal and metal/nonmetal mine compliance specialists.

Contents:

- g Compliance Determination of 30 CFR Parts 77.400 and 77.1600
- g Inspection Procedures for Surface Mining Equipment
- g Use of Signs and Traffic Control on Mine Property
- g Haul Road Design
- g Brake Systems
- g New Technology (video cameras)
- g Rollover Protective Structures (ROPS)
- g Falling Object Protective Structures (FOPS)
- g Tire and Rim Safety
- g Overview of Fatal Accidents

Technical Coordinator: John Tyler

Course Length: 3 days

Tuition: \$215.00

Dates: July 8-10, 2003

INDUSTRIAL HYGIENE



This course will enable health and safety compliance specialists to recognize and effectively assess health hazards, other than dust and noise, in coal mines and related areas. Laboratory exercises will include sampling procedures and techniques for more common health hazards that may be encountered during inspections. Other health hazard sampling procedures and techniques as well as health effects – respiratory, dermatological, carcinogenic – will also be discussed.

Contents:

- g Industrial Hygiene Terminology
- g Toxicology
- g Solvents
- **g** Asbestos
- g Radiation (Gamma, Ultraviolet)
- g Sampling Methods
- g Methods of Control
- g Contaminants Detected at Mine Sites

Technical Coordinator: William D. McKinney

Course Length: 3 days

Tuition: \$215.00

Dates: July 15-17, 2003

INSPECTOR'S PORTABLE APPLICATIONS FOR LAPTOPS (IPAL) REVIEW - COAL

The IPAL review course is designed for MSHA coal compliance specialists. The course reviews the latest version of the IPAL Program. The course also covers the fundamentals of the computer operating system, troubleshooting, and how to use the computer to reference resource material stored in the computer.

Contents:

- g IPAL (Inspector's Portable Applications for Laptops)
- **g** Reference Material (30 CFR, Mine Act, PPM, Policy Information Letters, and Program Information Bulletins)
- g Basic Troubleshooting and Maintenance of the Laptop Computer and the IPAL Program
- g Using the Citrix Metaframe

Technical Coordinators: Betty Hogan

Naomi Hughes

Course Length: 2 days

Tuition: None

Dates: March 25-26, 2003

Additional courses can be scheduled upon request

LONGWALL SAFETY



The primary purpose of this course is to introduce the student to longwall mining. It will also make the experienced compliance specialists more familiar with the trends and new technology in this area. The course will cover all aspects of longwall mining, including approved MSHA plans and Petitions for Modification. The course reviews the basic components that make up the longwall and their functions, which will enhance and assist the inspector during the inspection of longwalls.

Contents:

- g History and Trends
- **g** Parts of a Longwall (shearer, plow, panline, stage loader, drives, etc.)
- g Shields (parts and controls)
- g Strata Control (above the longwall)
- **q** Hydraulics
- g Longwall Moves
- g Special Roof Control Products for Longwalls
- g Ventilation (section, gob, bleeder, bleeder fans)
- g Basic Longwall Electrical Systems
- g CO Monitors
- g Degasification
- g Respirable Dust Control
- **g** Inspection Procedures
- **g** Regulations

Technical Coordinator: Don Gibson

Course Length: 3 days **Tuition:** \$215.00

Dates: July 29-31, 2003

MINE ACCIDENT INVESTIGATION AND REPORT WRITING

This course is available for MSHA coal, metal/nonmetal, labor and industry accident investigators. Other interested individuals should contact the Technical Coordinator. The course reviews basic guidelines, procedures, and techniques used to investigate and report on accidents and other incidents involving health and safety in the mining industry.

Classroom activities and discussions cover reasons for accident investigations, the investigative process, data collection, accident reconstruction, proper analysis for corrective actions, and completion of investigative reports following relevant MSHA guidelines and policies. At the conclusion of the class, in a practical exercise, students will conduct a simulated accident investigation and prepare a report. **Students should bring their laptop computers.**

Contents:

- g Overview of Accident Investigation
- g Pre-Investigation Activities
- g Accident Reconstruction
- g Photography/Sketching
- g Interviewing Techniques
- g Data Collection and Evaluation
- g Developing Conclusions and Recommendations
- g Report Writing
- **g** TapRooT®

Technical Coordinators: Kenneth M. Scott

Don Gibson

Course Length: 8 days

Tuition: \$572.00

Dates: December 3-12, 2002

March 18-27, 2003 May 13-22, 2003 July 15-24, 2003

September 16-25, 2003

NOISE HAZARDS, REGULATION, AND CONTROL

This course provides the participant with information on the hazards associated with overexposure to noise. It also thoroughly reviews 30 CFR Part 62, and appropriate monitoring and control methods. In addition, the students will discuss the elements of an effective hearing conservation program.

Contents:

- g Characteristics of Noise
- g Impact of Noise on Health
- **g** Noise Monitoring
 - ' Sound Level Meters
 - ' Dosimeters
 - ' Octave Band Analysis
- g Audiometric Examinations
- g Noise Regulation Compliance Discussion
 - ' Exposure levels
 - ' Monitoring
 - ' Hearing Conservation Programs
 - ' Training Requirements
- **g** Control methods

Technical Coordinator: William D. McKinney

Course Length: 3 days **Tuition:** \$215.00

Dates: Scheduled upon request

ROOF CONTROL FOR MINERS



This course will update the miner on regulations and the new safety products regarding roof control. Miners will be instructed in the principles and methods of roof/rib control. Subjects listed will be incorporated with safe mining practices to help reduce roof fall fatalities.

Contents:

- g Mobile Roof Supports/Retreat Mining
- g Cable Bolts
- g New Roof Bolting Products
- g Supplemental Supports (wood)
- **g** Geology
- g New ASTM Specs
- g ATRS/Canopies
- g Hazard Recognition
- g Other Topics

Technical Coordinator: John Rosiek

Course Length: 1 day

Tuition: \$72.00

Dates: Available at worksite upon

request

ROOF CONTROL SEMINAR

This seminar is designed for miners, company managers, engineers, trainers, roof bolter machine operators, and for any individual in coal mine roof safety. Federal and state enforcement personnel wishing to increase their knowledge in the latest developments in roof and rib control will also find this seminar very beneficial. This seminar will update personnel on new products and methods related to roof stability. The seminar will include presentations by personnel from the Academy, Technical Support, MSHA headquarters, other government agencies, and industry. All subjects will incorporate safe mining practices which will reduce roof fall injuries and fatalities. The seminar will discuss new roof control techniques, trends, and developments.

Contents:

- g New Roof Bolting Products
- g Supplemental Supports
- g Roof Control Fatality Trends and Prevention
- g Roof Control Machinery Updates

Technical Coordinators: Joseph P. Fama

John Rosiek

Course Length: 2 days

Tuition: None

Dates: May 28-29, 2003

SURFACE FACILITIES AND COAL PREPARATION

This course is designed to familiarize the student with: equipment and processes used in coal preparation plants; hazards that might exist around preparation plants; and inspection requirements for such plants. This course has been expanded to include structural safety in an effort to eliminate surface structural failures in the mining industry.

Contents:

- g Structural Safety
- g Equipment Guarding
- g Stockpile Safety
- g Delivery Methods to the Plant
- g Crushing, Sizing, and Washing Processes
- g Dewatering and Drying
- g Storage of Raw and Clean Coal
- g Potential Hazards
- g Preparation Plant Inspection

Technical Coordinators: Clifford F. Lindsay

John Tyler

Course Length: 3 days

Tuition: \$215.00

Dates: August 26-28, 2003

TapRooT® SYSTEM ACCIDENT/INCIDENT INVESTIGATION TRAINING

This course is for MSHA coal, metal/nonmetal, technical support, or other MSHA employees who are involved in mine accident/incident investigations. The TapRooT® System provides a methodology to lead an investigator through the techniques and steps used to perform an in-depth investigation of an incident's root causes. Training focuses on developing a flow diagram of the events and conditions leading up to the undesired incident, evaluating each condition, identifying causal factors, and evaluating each factor as to root cause. The course will include training on Systems Improvement's SnapCharT® and Root Cause Tree® software.

The SnapCharT® software is a graphic presentation of the sequence of events identified and discovered during the physical onsite investigation. A SnapCharT® helps the investigator to organize the information gathered and identify the contributing factors that lead to the incident. From this chart the investigator can identify causal factors. In addition, it helps the investigator identify holes and inconsistencies in the information gathered during the investigation.

The Root Cause Tree® software takes over where a SnapCharT® stops. While the SnapCharT® looks at what happened and the contributing factors involved, the Root Cause Tree® looks at why it happened. The Root Cause Tree® provides the investigator with a fairly comprehensive list of the root causes that should be considered for every incident.

Students should bring their laptop computers.

Contents:

- g Equipment Failure Analysis including:
 - Design Failures
 - ' Defective Parts
 - ' Preventive/Predictive Maintenance

TapRooT® SYSTEM ACCIDENT/INCIDENT INVESTIGATION TRAINING (continued)

g Human Performance Difficulty Analysis including:

- ' Procedures
- ' Training
- ' Quality Control
- ' Communications
- ' Management Systems
- Human Engineering
- Work Direction

Technical Coordinators: Kenneth M. Scott

Don Gibson

Course Length: 3 days

Tuition: \$215.00

Dates: January 14-16, 2003

April 22-24, 2003 June 24-26, 2003

UNDERGROUND DIESEL EQUIPMENT/ VENTILATION

This course provides the participants with techniques to conduct an evaluation of existing underground mining diesel equipment. Basic air sampling principles will be presented. The impact of diesel equipment on the mine ventilation system and the mine ventilation plan will be discussed. The associated health hazards with diesel equipment and diesel fuel will be examined.

Primary emphasis will focus on the Code of Federal Regulations (30 CFR) related to underground mining operations. The class will integrate technology with case studies and basic laboratory work.

Contents:

- g Code of Federal Regulations Review
- **g** Air Sampling Procedures
- g Introduction to Basic Air Flow Measurement Techniques
- **g** Equipment
- g Health Hazards
- g Proper Health Sampling Techniques
- g Review of Diesel Technology

Technical Coordinators: Scott Mandeville

Don Gibson

Course Length: 3 days

Tuition: \$215.00

Dates: March 11-13, 2003

June 3-5, 2003

UNDERGROUND HAULAGE, TRANSPORTATION, AND MACHINERY



Accidents classified as Haulage or Machinery have continued to be one of the leading causes of fatalities in underground mining. These two catagories are also the leading causes of nonfatal accidents in underground mining which result in lost work days. This course teaches recognition of some of the hazards associated with haulage equipment and other machinery found in underground coal mines and methods to eliminate them.

Contents:

- **q** Recent Statistical Data
- g Investigative Findings of Some Recent Accidents
- g Difference Between Those Accidents Classified as Haulage and Those Classified as Machinery
- g Regulations and Policy
- **g** Safeguards

Technical Coordinator: Roy Milam

Course Length: 2 days

Tuition: \$143.00

Dates: February 25-26, 2003

COAL MINE COMPLIANCE SPECIALISTS RETRAINING

MSHA underground coal mine compliance specialists are required to receive a minimum of two weeks of training every two years.

Listed below are the dates and subjects of the training sessions scheduled at the Academy.

SCHEDULE

October 22-31, 2002 January 7-16, 2003 April 8-17, 2003 July 15-24, 2003

SUBJECTS

- g Roof and Rib
- g Electrical
- g Ventilation
- g Noise
- **g** Part 48
- g Citation/Order
- g Preshift and Onshift Inspections
- **g** Conveyor Belts
- **g** Contractors
- g Law Regulation Policy
- g AAA Inspection Procedures
- g Fatals Analysis/Citations Issued
- g Mine Maps

These subject areas are for the October class only.

New subject areas for other scheduled dates will be announced later.

COAL ENTRY LEVEL COMPLIANCE SPECIALISTS TRAINING

The courses listed in this section are designed for entry level mine compliance specialists. However, they may be attended by Federal, state, mining industry, and labor organization personnel.

Training dates are given with each module.

Need More Info? Contact;

Jan Keaton
Department of Instructional Services
National Mine Health and Safety Academy
1301 Airport Road
Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3234 **FAX:** (304) 256-3247 **E-MAIL:** keaton-janice@msha.gov

COAL CURRICULUM (MODULES I-VIII)

The following chart shows the required core courses for entry level compliance specialists.

Wellness Training is scheduled daily for each module. Laptop computer and printer required for all modules.

MODULE I (4 weeks)

Orientation Standards of Conduct Diversity Professionalism Effective Citation Writing Law, Regulation, & Policy/ Math Citations and Orders/ Notetaking Introduction to Laptops

MODULE II (3 weeks)

Inspection Procedures Inspector's Portable Applications for Laptops (IPAL) Surface Installations Combustible Materials and Rockdusting Ground Control Structural Safety Gas Detecting Devices

MODULE III (3 weeks)

Citations and Orders Review (S&S) Roof Control I Surface Load and Haul Respirable Dust

MODULE IV (3 weeks)

Citations and Orders Review [104(d)] Fire Protection IPAL Review Mine Maps/Ventilation Courtroom Procedures Workplace Examinations Simulated Inspection Misc. Safety Standards

MODULE V (3 weeks)

Blasting and Explosives Citations and Orders Review [107(a)] Roof Control II Petition for Modification Underground Haulage Mine Electricity I Training Requirements/ Part 48

MODULE VI (3 weeks)

Citations and Orders Review [104(g) Part 46/48] Accident Investigation Mine Electricity II Impoundments Ventilation II Noise/Miscellaneous Health

MODULE VII (3 weeks)

Part 50 Interviewing Techniques Electrical Permissibility Diesel Permissibility Mine Wide Monitoring Longwall Mine Rescue/Part 49 Introduction to Special Investigations

MODULE VIII (3 weeks)

Repeat Violation Reduction Program (RVRP) Simulated Inspection Citations and Orders Review [103(k) Part 50] Technical Support Field Trip Citations and Orders Review [103(f)/103(g)] Hoisting Employee Health and Safety Conference Communications/Trip to District Office Review/Graduation

COAL ENTRY LEVEL COMPLIANCE SPECIALISTS TRAINING

GROUP 36

Module I	November 3 – November 22, 2002	(3 weeks)
Module II	January 27 –February 14, 2003	(3 weeks)
Module III	March 24 – April 18, 2003	(4 weeks)
Module IV	June 2 – June 20, 2003	(3 weeks)
Module V	July 14 – August 1, 2003	(3 weeks)
Module VI	September 8 – September 26, 2003	(3 weeks)
Module VII	October 20 – November 7, 2003	(3 weeks)
Module VIII	December 1 – December 19, 2003	(3 weeks)

COMPUTER TRAINING SCHEDULE

Contents of each computer class are listed followed by a schedule by course dates. All persons attending, except employees of Federal, state, or local governments, will be charged a tuition fee of \$215.00 for a three-day class; \$143.00 for a two-day class; and \$72.00 for a one-day class.

Additional information may be obtained by contacting the Course Coordinators: Mac A. Carnes (304) 256-3398; Naomi A. Hughes (304) 256-3313; or Betty Hogan (304) 256-3235.

To Enroll Contact:

National Mine Health and Safety Academy Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252 **FAX:** (304) 256-3251



Microsoft Word 2002 is a word-processing program that is used to compose and update a wide range of business documents. It offers many desktop-publishing features that let you enhance the appearance of documents. Word also has the power and flexibility to produce professional documents quickly and easily.

Contents:

- g Create a Document
- g Edit and Format
- g Present Information in Tables and Columns
- g Work with Graphics/Charts
- g Customize Word for the Way You Work
- g Create Form Letters and Labels
- g Create Forms
- g Work with Footnotes and Bookmarks
- g Work with Tables of Contents and Indexes

Technical Coordinator: Naomi Hughes

Course Length: 3 days

Tuition: \$215.00

Dates: November 19-21, 2002

January 14-16, 2003 March 4-6, 2003 May 13-15, 2003 June 10-12, 2003 July 22-24, 2003 August 12-14, 2003 September 9-11, 2003



Windows 2000 is an operating system that organizes files, runs programs, and coordinates work. This course will explore some of the basic features of the Windows desktop.

Contents:

- g Use the Windows Desktop
- g Customize Windows to the Way You Work
- g Work with Files and Folders
- g Print How to Add a Network Printer
- g Change Windows Settings
- g Change Password
- **g** Use the System Tools
- g Use of Network Drives vs. Local Drives
- g Log Onto the Network vs. Local Drives
- g Virus Utilities
- g Remote Access

Microsoft Outlook 2002 is a desktop communications program that helps manage time and information more effectively and enables users to share information and collaborate with others more easily.

Contents:

- g Mailbox Folder Creation
- g Limitation on Mailbox Size
- g How to Determine Mailbox Size
- g Customize and Organize Email Messages
- g Personal/Public Shared Folder
- g Personal/Global Address Book
- g Schedule and Manage Meetings
- g Create and Organize Contacts/Tasks/Notes

- **g** Customize Outlook
- g Insert Hyperlinks to Files
- g Remote Access
- **g** Manage your Calendar
- ${\bf g}$ Use the Journal
- **g** Out of Office Assistant

Technical Coordinator: Naomi Hughes

Course Length: 2 days

Tuition: \$143.00

Dates: February 11-12, 2003

April 8-9, 2003 May 20-21, 2003 August 5-6, 2003

NEW MICROSOFT POWERPOINT 2002

Microsoft PowerPoint 2002 is a presentation program that allows users to create overhead slides, speaker notes, audience handouts and outlines – all in a single presentation file. Power-Point offers powerful tools to help create and organize a presentation step by step. This class includes hands-on work in the Computer Laboratory, and development of a sample presentation.

Contents:

- g Choose the Best Method to Start a Presentation
- g Create a Presentation Using Suggested Content and a Design Template
- g Browse Through a Presentation
- g Enter and Edit Text in a Presentation
- g View a Presentation
- g Insert Slides from Other Presentations
- g Rearrange Slides in a Presentation
- g Create a Folder to Store a Presentation
- **g** Change Text Alignment and Spacing
- g Find and Replace Text and Fonts
- g Correct Text While Typing
- g Check Spelling and Presentation Styles
- g Add a Header and Footer
- **g** Choose the Right Print Settings
- g Preview and Print a Presentation
- g Enter and Print Speaker Notes

Betty Hogan **Technical Coordinator:**

> **Course Length:** 3 days

Tuition: \$215.00

> **Dates:** December 3-5, 2002

> > January 28-30, 2003 April 22-24, 2003 July 15-17, 2003



NEW MICROSOFT EXCEL 2002 - BASIC

Excel 2002 is a spreadsheet program that can be used to organize, analyze and attractively present data, such as a budget or sales report. This course requires a prior knowledge of computers. Classroom activities include hands-on work in the Computer Laboratory.

Contents:

- g Excel Basics
- g Entering and Editing Data
- g Modifying a Worksheet
- g Using Functions
- **g** Formatting Worksheets
- **g** Printing
- g Creating Charts
- **g** Using the Help Feature

Technical Coordinator: Mac Carnes

> **Course Length:** 3 days

Tuition: \$215.00

Dates: November 5-7, 2002

> March 11-13, 2003 May 20-22, 2003



Excel 2002 is a spreadsheet program that can be used to organize, analyze and attractively present data, such as a budget or sales report. This course requires a prior knowledge of computers and the Basic Excel course. Activities include hands-on work in the Computer Laboratory.

Contents:

- g Working With Large Worksheets
- g Working With Multiple Worksheets and Workbooks
- **g** Advanced Charting
- g Advanced Formatting
- **g** Using Templates
- **g** Additional Functions
- g Protecting Parts of a Worksheet

Technical Coordinator: Mac Carnes

Course Length: 3 days **Tuition:** \$215.00

Dates: January 7-9, 2003

May 6-8, 2003 July 15-17, 2003



NEW MICROSOFT ACCESS 2002 - BASIC

Access 2002 is a database program that allows users to store and manage large collections of information. Access provides all the tools needed to create an efficient and effective database. This course requires a prior knowledge of computers. Activities include hands-on work in the Computer Laboratory.

Contents:

- g Access Basics
- g Creating Databases
- g Working With Fields and Records
- g Querying Tables
- g Creating and Using Forms
- g Create, Modify and Print Reports
- g Import and Export Database Objects

Mac Carnes **Technical Coordinator:**

> **Course Length:** 3 days

Tuition: \$215.00

October 22-24, 2002 **Dates:**

> March 4-6, 2003 July 8-10, 2003



Access 2002 is a database program that allows users to store and manage large collections of information. Access provides all the tools needed to create an efficient and effective database. This course requires a prior knowledge of computers. Activities include hands-on work in the Computer Laboratory.

Contents:

- g Creating Relational Databases
- g Working With Related Tables
- **g** Input Masks
- g Advanced Query Features
- g Creating Advanced Queries
- **g** Advanced Form Design
- **g** Advanced Report Features
- g Creating Charts in Forms and Reports

Technical Coordinator: Mac Carnes

Course Length: 3 days

Tuition: \$215.00

Dates: December 3-5, 2002

April 8-10, 2003 August 19-21, 2003



Access 2002 is a database program that allows users to store and manage large collections of information. Access provides all the tools needed to create an efficient and effective database. This course is for experienced database users and requires a prior knowledge of Microsoft Access. Activities include hands- on work in the Computer Laboratory.

Contents:

- g Create and Use an Advanced Form
- g Create and Use Macros
- g Exploring Access SQL
- g Managing and Protecting Databases

Technical Coordinator: Mac Carnes

Course Length: 3 days

Tuition: \$215.00

Dates: January 28-30, 2003

May 13-15, 2003

September 16-18, 2003

CERTIFICATION AND QUALIFICATION COURSES

The courses in this section are available to MSHA and industry personnel. Upon successful completion of any of these courses, participants will receive the required MSHA certification for the particular area covered.



Courses marked by this icon may be held at your worksite. If your company or organization would like any of these courses

presented onsite, contact Jan Keaton at (304) 256-3234. The course will then be scheduled.



If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Jan Keaton at (304) 256-3234.



National Mine Health and Safety Academy Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252 **FAX:** (304) 256-3251

ANNUAL RETRAINING FOR IMPOUNDMENT QUALIFICATION

This course provides the annual retraining requirements for qualified impoundment compliance specialists. Impoundment compliance specialists are required to receive annual retraining in accordance with the requirements specified in the Code of Federal Regulations [30 CFR 77.107-1(b)].

Contents:

- g Reviews of Proper Inspection Procedures
- g Signs of Impoundment Distress
- g Instrumentation Monitoring
- g Construction Monitoring
- g Emergency Action Planning
- g Foundation Analysis
- g Geotechnical Investigations
- g Breakthrough Potential Analysis

Technical Coordinator: Clifford F. Lindsay

Course Length: 4 hours

Tuition: \$41.00

Dates: December 17, 2002

March 20, 2003 June 18, 2003

September 11, 2003

QUALIFICATION FOR IMPOUNDMENT INSPECTION



This course provides the initial training for personnel who are required to inspect impoundments. Successful completion of this course qualifies the participant to inspect impoundments as required by the Code of Federal Regulations [30 CFR 77.216-3(g)].

Contents:

Introductory training on:

- g Proper Inspection Procedures
- g Recognizing Deficiencies and Signs of Distress
- g Failure Modes
- g Foundation Analysis
- g Geotechnical Investigation
- g Breakthrough Potential Analysis
- g Common Instrumentation
- g Facility Configurations
- g Field Hazard Classifications
- g Reporting Requirements
- g Inspection Forms

Technical Coordinator: Clifford F. Lindsay

Course Length: 8 hours

Tuition: \$72.00

Dates: November 13, 2002

February 13, 2003 May 15, 2003 July 10, 2003

RESPIRABLE COAL MINE DUST SAMPLER CALIBRATION/MAINTENANCE CERTIFICATION

This course provides the initial training for personnel who are required to calibrate and maintain coal mine dust sampling equipment. Successful completion of this course certifies the participant to calibrate and maintain respirable coal mine dust sampler units under the current Code of Federal Regulations (30 CFR Parts 70/71/90).

Contents:

- g Properties of the Approved Sampling Unit
- **g** Responsibilities of the Certified Person for Maintenance and Calibration

Hands-On Instruction:

- g Pump Calibration Procedures
- g Maintenance Requirements
- g Sampling Unit Inspection
- g Pre-Shift Checks of Approved Sampling Unit

Technical Coordinator: William D. McKinney

Course Length: 8 hours **Tuition:** \$72.00

Dates: September 24, 2003

RESPIRABLE COAL MINE DUST SAMPLING CERTIFICATION

This course provides the initial training for personnel who are required to collect coal mine dust samples.

Successful completion of this course certifies the participant to collect and submit respirable coal mine dust samples under the current Code of Federal Regulations (30 CFR Parts 70/71/90).

Contents:

Instruction in the Regulations Governing the Coal Mine Operator's Respirable Dust Sampling Program including:

- g Nature of Respirable Dust Hazards
- g Responsibilities of the Certified Sampler
- g Respirable Dust Sampling Procedures
- g Approved Sampler Units
- g On-Shift Parameter Checks

Hands-on Instructions for Sampling Unit:

- **g** Assembly
- g Inspection
- **g** Use

Technical Coordinator: William D. McKinney

Course Length: 8 hours **Tuition:** \$72.00

Dates: September 23, 2003

THIS PAGE INTENTIONALLY LEFT BLANK

GENERAL COURSES FOR MSHA AND THE MINING INDUSTRY

The Academy courses described in this section are available to MSHA and industry personnel.



Courses marked by this icon may be held at your worksite. If your company or organization would like any of these courses

presented onsite, contact Jan Keaton at (304) 256-3234. The course will then be scheduled.



If you need more information about contents of a course, contact the technical coordinator for that course at (304) 256-3100 or Jan Keaton at (304) 256-3234.



National Mine Health and Safety Academy Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252 **FAX:** (304) 256-3251

ACCIDENT PREVENTION TECHNIQUES



This course is designed for safety managers/directors, mine managers, or anyone in the mining industry involved in safety management. Several proven accident reduction techniques are covered during the three-day class. The course begins with a discussion on the principle of multiple causation and the importance of identifying the significant contributing factors in most mining accidents. Accidents/incidents are broken into the three levels of causation with examples of each level discussed. Discussions focus on the indirect level of causation through a technique of identifying performance problems as either skill or motivational. Unsafe conditions and unsafe work practices are addressed through job safety analysis and job observation. Stress, safety communications, and effective safety talks will be covered. The class ends with a health and safety survey which can identify the strengths and weaknesses of a company's health and safety program.

Contents:

- **q** Accident/Incident Analysis
- **g** Analyzing Performance Problems
- g Safety Communications/Promotion
- g Developing Effective Safety Talks
- g Managing Stress
- g Job Safety Analysis
- g Job Observation
- g Accident Investigation
- g Mine Safety Program Rating Procedures

Technical Coordinator: Kenneth M. Scott

Course Length: 3 days **Tuition:** \$215.00

Dates: Scheduled upon request



This advanced ventilation course is specifically designed for ventilation specialists, safety compliance specialists, supervisors, and mine managers. It will improve their understanding and working knowledge in ventilation systems for underground mining. This course will provide detailed discussion in the following areas.

Contents:

- g Ventilation Design
- **g** Plan Approval
- g Regulatory Compliance
- **g** Maintenance
- g Inspection/Examination
- g Evaluation of Ventilation Systems
- **g** De-gasification

Technical Coordinator: Scott Mandeville

Course Length: 2 days **Tuition:** \$143.00

Dates: January 7-8, 2003



This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to take. The course is for coal industry personnel with limited or no electrical expertise.

Contents:

- g Basic Electrical Theory
- g Basic Circuitry
- g Hazard Recognition
- **g** Grounding
- g Power Distribution Systems
- g Regulations and Policies
- g Personal Safety
- g Inspection of Electrical Equipment
- **g** Permissibility

NOTE: This course is not intended for Electrical Specialists.

Technical Coordinator: Roy Milam

Course Length: 3 days **Tuition:** \$215.00

Tultion: \$213.00

Dates: April 22-24, 2003

ELECTRICAL SAFETY FOR METAL/NONMETAL MINERS

This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to take. This course is for metal/nonmetal industry personnel with limited electrical expertise.

Contents:

- **q** Grounding
- g Power Distribution Systems
- g Inspection of Electrical Equipment
- g Regulations and Policies
- g Hazard Recognition
- g Personal Safety

NOTE: This course is not intended for Electrical Specialists.

Technical Coordinator: Roy Milam

Course Length: 2 days

Tuition: \$143.00

Dates: January 28-29, 2003

June 17-18, 2003



This course is designed to provide operators with information to develop an effective HazCom program. It will review the requirements of 30 CFR Part 47, including identification of chemicals at the mine site, determining which chemicals are hazardous, establishing a HazCom Program, and informing miners about chemical hazards and appropriate protection measures.

Contents:

- g Purpose and Scope of the HazCom Standard
- g Operators and Chemicals Covered
- g Identification of Hazardous Chemicals
- g Requirements for a HazCom Program
- g Container Labels and Other Forms of Warning
- g Material Safety Data Sheet (MSDS) Requirements
- g HazCom Training Requirements
- g Availability of HazCom Information
- g Trade Secret Provisions
- g Exemptions

Technical Coordinators: Tom Bonifacio

William D. McKinney

John Tyler

Course Length: 1 day

Tuition: \$72.00

Dates: April 22, 2003

HOISTS AND ELEVATORS

This course provides instruction to the student in the basic parts of mine personnel hoists and elevators. It includes discussion of drums, sheaves, cages, but mainly concentrates on wire ropes and terminations. The student will learn basic wire rope and termination technology and how to use this knowledge to enforce removal criteria according to the Code of Federal Regulations (30 CFR 75.1400 or 56.19000). The class will also touch on the American Society of Mechanical Engineers (ASME) A17.1 and A17.2 Standards which apply to elevators. The student will be taught how to conduct an adequate inspection for personnel hoists and elevators. There are exercises on hazard recognition and how to write the appropriate citations. This course is for MSHA coal compliance specialists, MNM compliance specialists, and industry personnel.

Contents:

- g Wire Rope Technology
- g Terminations and Attachments
- g Removal Criteria According to 30 CFR
- g How to Apply ASME A17.1 & A17.2
- g Hazard Recognition
- g Inspection Procedure
- g Citation and Order Writing

Technical Coordinator: Joseph P. Fama

Course Length: 3 days **Tuition:** \$215.00

Dates: September 23-25, 2003

INDUSTRIAL HYGIENE: SAMPLING FOR RESPIRABLE SILICA DUST AND NOISE

(Offered on site)

This class, developed in cooperation with the National Stone, Sand and Gravel Association, is to be scheduled at your worksite. It involves two days of classroom work and a full day of on-site sampling for silica and noise. It prepares miners and mine operators to conduct ongoing sampling. Results of noise sampling are available immediately; dust samples require analysis in the laboratory, and the cost of analysis is picked up by the mine operator.

A minimum of ten students is required; the maximum class size is fifteen students.

Contents:

- g Hazards of Silica and Noise
- g Introduction to Industrial Hygiene
- g Sampling Equipment and Techniques Laboratory
- g Record Keeping
- g Calculations
- **g** Controls

Technical Coordinators: William D. McKinney

Polly Kalich

Tuition: \$250.00 per student

Dates: Limited availability; to be

arranged with individual

operators

INSTRUCTOR TRAINING WORK SHOP (PART 48)

This course is intended to improve the instructional skills, abilities, and knowledge of mine trainers. Participants will be required to select, develop, and present a 15-minute training segment on a health or safety topic in 30 CFR Part 48. The presentation will be videotaped for playback and individual review.

Approval as a Part 48 instructor is a two-part process. (1) You must demonstrate that you have knowledge of the subjects that you will be teaching. This is generally accomplished by submitting a resume to the local MSHA District showing your mining experience and education. (2) You must demonstrate that you have the ability to teach. Successful completion of this course will enable you to meet this requirement.

The course is offered as a three (3) or four (4) day program. An **optional** MSHA First Aid class is offered the **first** day.

Contents:

- g Principles of Adult Instruction
- g Developing Objectives
- g Developing Criterion Test Items
- g Outlining the Training Content
- **q** Determining the Instructional Methods
- g Developing and Using Training Aids
- **g** Developing a Lesson Plan
- g Using Facilitation Skills
- g Part 48 Requirements
- g MSHA First Aid Program

Technical Coordinator: Kenneth M. Scott

Course Length: 3 days (4 days with first aid)

Tuition: \$215.00 (3 days)

\$286.00 (4 days)

Dates: November 18-21, 2002

April 14-17, 2003 August 25-28, 2003

(All dates include one day First Aid Instructor Training)

INTERMEDIATE TOXICOLOGY



This course will provide coal and metal/nonmetal health specialists with a review of the uptake, distribution, metabolism, and elimination of industrial and environmental chemicals. Dose- and time-response relationships will be discussed. Toxic effects of metals, particulates, solvents, and other chemicals found in the mine environment will be examined.

Contents:

- g Introduction to Fundamental Concepts of Toxicology
- g Review of Terminology Used in Toxicology
- **g** Comparison of Inhalation, Ingestion, and Dermal Exposures
- g Definition of Endpoints of Toxicity
- g Summary of Acute Versus Chronic Toxicity
- g Discussion of Toxicity Data Used to Develop Exposure Limits for Humans

Instructor: Michelle Schaper **Technical Coordinator:** William D. McKinney

Course Length: 3 days **Tuition:** \$215.00

Dates: August 12-14, 2003

INTRODUCTION TO MINING



The mining industry fulfills the important function of providing society's raw materials. Increasingly, mining has become more complex, due to rapid technological changes and comprehensive regulations. This complexity coupled with the industry's rich and traditional use of unique terminology can make understanding mining difficult for persons unfamiliar with it. This course introduces participants to the broad scope of mining, and is for those with little or no mining knowledge. It will provide participants with a working understanding of the various aspects of the industry.

Contents:

- g Mining Terminology
- g Mineral Exploration and Geology
- g Mineral Economics
- g Description of the Different Mining Methods
- g Coal Preparation and Mineral Processing
- g Health and Safety Regulations including:
 - ' Ground/Roof Control
 - ' Ventilation and Dust Control
 - ' Haulage and Hoisting
 - ' Personal Protective Equipment
 - ' Mapping
 - ' Mine Examinations
 - ' Electricity
 - ' Explosives
 - ' Hygiene

Technical Coordinator: Jimmy L. Shumate

Course Length: 3 days **Tuition:** \$215.00

Dates: August 26-28, 2003

MINE ACCIDENT INVESTIGATION TECHNIQUES



This course is directed towards safety directors, managers, foremen, union safety committee persons, or mining industry (metal/ nonmetal or coal) individuals involved in accident investigation. Course content reviews basic guidelines, procedures, and techniques for the preparation and handling of investigations of accidents and other incidents involving health and safety in the mining industry.

Classroom activities and discussions cover reasons for accident investigations, the investigative process, data collection, accident reconstruction, and proper analysis for corrective actions. Hands-on exercises are stressed along with class participation.

Contents:

- g Overview of Accident Investigation
- g Pre-Investigation Activities
- g Accident Reconstruction
- g Photography/Sketching
- g Interviewing Techniques
- g Data Collection and Evaluation
- g Developing Conclusions and Recommendations

Technical Coordinator: Kenneth M. Scott

Course Length: 3 days Tuition: \$215.00

Dates: September 9-11, 2003

MINE CONSTRUCTION, MAINTENANCE, AND REPAIRS SAFETY

This course is designed for the mining construction industry, related support groups, mining regulatory agencies, and others that are involved with the planning, design, and application of mine construction and maintenance activities.

Contents:

- g Accident Analysis and Prevention
- g Effective Work Area Examinations
- g Mobile Equipment Examinations
- g Fall Prevention
- g Basic Crane Safety
- g Material Storage and Handling
- g Conveyor Belt Safety
- g Confined Space Safety
- g Wire Ropes and Slings
- g Surface Installations

Technical Coordinator: Tom Bonifacio

Course Length: 2 days

Tuition: \$143.00

Dates: November 13-14, 2002

June 3-4, 2003

MINE EL EVATOR IN SPECTION PROGRAM TRAIN ING – MOD ULE I



This training module covers the inspection of mine elevators and the impact of the mine environment on critical elevator components. It will enable the student to perform basic mine elevator inspections, focusing on critical safety concerns, including those identified in recent mine elevator accidents. The material will be correlated to the applicable sections of ASME A17. Many visuals and actual elevator hardware will be used throughout the program.

This module is a stand-alone program for elevators used in harsh environments. It also can be used as the first in a series of modules designed to prepare the student for taking the Qualified Elevator Inspector (QEI) certification examination.

NOTE: Students should bring the latest version of elevator codes ASME A17.1 & A17.2.1 with them, although they are not mandatory.

Technical Coordinator: Roy Milam

Course Length: 3 days **Tuition:** \$215.00

Dates: July 29-31, 2003



This course is designed for mine rescue teams and mining industry personnel that may be associated with responding to mine emergencies, such as mine fires, explosions, and inundations. The major part of the training is accomplished by participation in exercises in the Mine Simulation Laboratory.

Contents:

- g Mine Emergency Response Overview
- g Mine Emergency Operations
- g Mine Emergency Personnel
- g Mine Emergency Communications and Decision Making
- g Mine Emergency Practices and Procedures
- g Mine Emergency Rescue and Recovery Strategy
- g Tactical Implementation of Operations

Technical Coordinator: David Friley

Course Length: 1 day
Tuition: \$72.00*

Dates: Available upon request

^{*} Tuition may be waived for mine rescue team members participating in team training activities, up to ten (10) days per calendar year.

NOISE HAZARDS, REGULATION, AND CONTROL

This course provides the participant with information on the hazards associated with overexposure to noise. It also thoroughly reviews 30 CFR Part 62 and appropriate monitoring and control methods. In addition, the course discusses the elements of an effective hearing conservation program.

Contents:

- g Characteristics of Noise
- g Impact of Noise on Health
- **g** Noise Monitoring
 - ' Sound Level Meters
 - ' Dosimeters
 - ' Octave Band Analysis
- g Audiometric Examinations
- g Noise Regulation Compliance Discussion
 - ' Exposure Levels
 - ' Monitoring
 - ' Hearing Conservation Programs
 - ' Training Requirements
- g Control Methods

Technical Coordinator: William D. McKinney

Course Length: 3 days **Tuition:** \$215.00

Dates: December 17-19, 2002

RESPIRABLE DUST AND SILICA SAMPLING AND CONTROL



This course includes ventilation plan case studies and intensive hands-on exercises focusing on dust control plan evaluation and quantitative measurement and analysis of control parameters.

Contents:

- g Respirable Dust and Silica: Health Hazards and Sources
- g Compliance with 30 CFR and MSHA Policy
- g Noncompliance A History of Violations
- g Respirable Dust Sampling Equipment
- g Conducting Respirable Dust Inspections: Operator and MSHA Sampling
- g Documentation: The Importance of Good Records
- g An Introduction to Dust Control
- g Face Ventilation Systems and Equipment and Ventilation Measurements
- g Water Systems: Measuring Flows and Pressures
- g Respiratory Protection Programs and ANSI Standards
- g Operator Programs: Dust and Ventilation Control
- **g** Field Sampling Day(s)
- g Evaluation of Control Programs

Technical Coordinator: William D. McKinney

Course Length: 3 days
Tuition: \$215.00

Dates: Scheduled upon request

SURFACE FACILITIES AND COAL PREPARATION

This course is designed to familiarize the student with: equipment and processes used in coal preparation plants; hazards that might exist around preparation plants; and inspection requirements for such plants. This course has been expanded to include structural safety in an effort to eliminate surface structural failures in the mining industry.

Contents:

- g Structural Safety
- g Equipment Guarding
- g Stockpile Safety
- g Delivery Methods to the Plant
- g Crushing, Sizing, and Washing Processes
- g Dewatering and Drying
- g Storage of Raw and Clean Coal
- g Potential Hazards
- g Preparation Plant Inspection

Technical Coordinators: Clifford F. Lindsay

John Tyler

Course Length: 3 days

Tuition: \$215.00

Dates: August 26-28, 2003

UNDERGROUND HAULAGE, TRANSPORTATION, AND **MACHINERY**



Accidents classified as Haulage or Machinery continue to be one of the leading causes of fatalities in underground mining. These two catagories are also the leading causes of nonfatal accidents in underground mining which result in lost work days. This course teaches recognition of some of the hazards associated with haulage equipment and other machinery found in underground coal mines and methods to eliminate them.

Contents:

- **q** Recent Statistical Data
- g Investigative Findings of Some Recent Accidents
- g Difference Between Those Accidents Classified as Haulage and Those Classified as Machinery
- g Regulations and Policy
- **g** Safeguards

Technical Coordinator: Roy Milam

> **Course Length:** 2 days

Tuition: \$143.00

Dates: February 25-26, 2003

THIS PAGE INTENTIONALLY LEFT BLANK

SEMINARS/WORKSHOPS FOR MSHA AND THE MINING INDUSTRY

The Academy Seminars/Workshops described in this section are available to MSHA and industry personnel.



If you need more information about contents of a seminar/workshop, contact the technical coordinator for that seminar/workshop at (304) 256-3100 or Jan Keaton at (304) 256-3234.

To Enroll Contact;

National Mine Health and Safety Academy Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

TELEPHONE: (304) 256-3252 **FAX:** (304) 256-3251

ACCIDENT INVESTIGATION RETRAINING SEMINAR

This seminar is designed to provide continuing education training to MSHA Accident Investigators on a bi-annual basis. Current accident investigators in Coal, MNM, Technical Support, and EPD are required to attend one of the two scheduled seminars. The first seminar was conducted in February 2001. A prerequisite for the seminar is the two-week Basic Accident Investigation and Report Writing course offered by the Academy. Space is limited to half the investigators in FY 2002 with the other half in FY 2003. **Students should bring their laptop computers.**

Some of the projected topics for the seminar are:

- g Advanced Interviewing Techniques
- g Using Tape Recorders During Interviewing
- g Legal Issues Involving MSHA Investigations
- g Advanced Evidence Collection
- g Critical Incident Stress
- g Report Writing
- g Scene Preservation and Sketching
- g NTSB Investigations

Technical Coordinator: Kenneth M. Scott

Course Length: 7 days
Tuition: None

Dates: February 19-27, 2003

MINE BLASTING SAFETY AND APPLICATION SEMINAR

This seminar is designed for company managers, blasting engineers, blasters, state and Federal mine compliance specialists (coal and metal/nonmetal), and others involved with the planning, design, and the use of explosives in the mining industry. The most recent blasting techniques, trends, and developments will be discussed, as well as the ability to share ideas in small group sessions.

Contents:

- g Vibration Analysis/Seismographs/Efficient Blasting Techniques
- g Storage of Explosives
- g Handling and Use of Explosives
- g Silica Dust and Toxic Gas Hazards in Blasting
- g Blasting Agents and Emulsions

Technical Coordinator: Wayne L. Lively

Course Length: 2½ days

Tuition: None

Dates: January 22-24, 2003

MINE CONSTRUCTION, MAINTENANCE, AND REPAIRS SAFETY WORKSHOP

This workshop is designed for the mining construction industry, related support groups, mining regulatory agencies, and others that are involved with the planning, design, and application of mine construction and maintenance activities.

Contents:

- g Blasting in Construction
- g Fall Protection Systems
- g Electrical Hazards Affecting Construction
- g Equipment Practices and Workplace Examinations
- g Crane Safety
- g Working in Confined Spaces
- g Structure Demolition
- g Retrofit Noise Controls
- g Wire Ropes and Slings Used in Construction
- g Accident Review
- g How Contractors are Affected by 30 CFR Parts 46 and 48
- g Welding Safety
- g Compliance Guide for 30 CFR, Part 47 Hazard Communication (HazCom)
- g Wire Rope Testing

Technical Coordinator: Tom Bonifacio

Course Length: 3 days **Tuition:** None

Dates: April 1-3, 2003

MINE FIRE CONTROL SEMINAR

This seminar is designed to provide participants with information concerning mine fire situations. The seminar will blend class presentations and case studies with exercises in the Mine Simulation Laboratory.

Contents:

- g Fire Statistics
- g Recent Events
- g An Overview of 30 CFR Part 75
- g Location and Operation of Equipment
- g Site Communications

Technical Coordinators: David Friley

Jerry Bailey

Course Length: 1 day

Tuition: None

Dates: June 18, 2003

ROOF CONTROL SEMINAR

This seminar is designed for miners, company managers, engineers, trainers, roof bolter machine operators, and for any individual in coal mine roof safety. Federal and state enforcement personnel wishing to increase their knowledge in the latest developments in roof and rib control will also find this seminar very beneficial. This seminar will update personnel on new products and methods related to roof stability. The seminar will include presentations by personnel from the Academy, Technical Support, MSHA headquarters, other government agencies, and industry. All subjects will incorporate safe mining practices which will reduce roof fall injuries and fatalities. The seminar will discuss new roof control techniques, trends, and developments.

Contents:

- g New Roof Bolting Products
- g Supplemental Supports
- g Roof Control Fatality Trends and Prevention
- g Roof Control Machinery Updates

Technical Coordinators: Joseph P. Fama

John Rosiek

Course Length: 2 days

Tuition: None

Dates: May 28-29, 2003



SAFE PRACTICES CONFERENCE

MSHA is sponsoring a conference to provide the opportunity for mining industry personnel to present, demonstrate, and exchange "Safe Practice" information to further increase safety and health awareness and promote a safety culture throughout the mining industry. The conference will focus on "Safe Practices," and their implementation, related to recent fatalities involving haulage, electrical, machinery, roof control, and slip/fall of persons. The conference will include panel discussions, workshop sessions, and question/answer sessions.

Technical Coordinator: Ed Newcomb

Course Length: 2 days **Tuition:** None

Dates: November 13-14, 2002

SURFACE HAULAGE SAFETY SEMINAR

This seminar brings together representatives of the mining industry and others that are involved with the planning, design, and use of surface mine haulage equipment and/or systems. The seminar will provide an opportunity for the participants to exchange information and observe firsthand new technology, equipment, and innovations that are being used in the mining industry. Industry and other technical presenters will provide presentations, exhibits, and equipment displays that allow the participants to interact in small groups with the presenters and each other.

Contents:

- g Equipment Brake Systems
- g Equipment Safety Instructions
- g Tire Care and Maintenance
- g Crane Safety
- g Cab Ergonomics
- g Discriminating Alarm Systems
- g Dump Point Safety
- g Diesel-Electric Equipment
- g Fire Suppression on Haulage Equipment
- g Haul Roads Keys to Accident Prevention
- g Hazards and Accident Prevention in Belt Conveyor Operations
- g Specific Equipment Systems (Loaders, Trucks, Dozers, Shovels)
- g Loss Prevention Haulage
- g New Automation Technologies Conveyors, Plants, Mills
- g Safe Handling and Transport of Bulk Blasting Agents
- g Safety Aspects of Mounting/Demounting Tires
- g Haul Road Design

Technical Coordinator: Wayne L. Lively

Course Length: 2½ days
Tuition: None

Dates: March 4-6, 2003

TRAM/NATIONAL MINE INSTRUCTORS SEMINAR

This seminar provides opportunities for health and safety trainers to improve their training programs with new materials and new ideas. The seminar will also include an exhibit of training materials developed by MSHA, state grants recipients, and the mining industry. Small workshops allow participants to interact with workshop leaders and other participants.

Contents:

- g Innovative Instructional Techniques
- g Instructional Technology and Computer Applications
- **g** Underground Mine Safety (Metal/Nonmetal and Coal Topics)
- g Surface Mine Safety (Metal/Nonmetal and Coal Topics)
- g General Safety
- g Health
- **g** Ergonomics
- g Supervisory Issues

Another feature of the seminar is the Training Materials Competition. Health and safety training materials entered in the competition will be judged and winners will be announced at the Seminar. All materials entered in the competition will be placed on display.

Technical Coordinators: Jimmy L. Shumate

Sharon T. Casto

Course Length: 2½ days

Tuition: None

Dates: October 15-17, 2002

TECHNICAL SPECIALISTS TRAINING

MSHA mine compliance specialists, supervisors, specialists, administrative, and clerical personnel are to receive a minimum of two weeks advanced training every two years.

Listed below are the groups and dates for which training sessions have been scheduled at the Academy:

Accident Investigators

February 19-27, 2003

Administrative/Clerical Personnel

March 25-27, 2003 June 10-12, 2003 August 19-21, 2003

Electrical Specialists

February 4-13, 2003 (METAL/NONMETAL) April 29-May 8, 2003 (COAL)

Health Specialists

(Dates not available at time of publication)

Impoundment Specialists

March 4-6, 2003

MNM Journeyman Compliance Specialists

December 10-19, 2002 January 28-February 6, 2003 April 8-17, 2003

Roof Control Specialists

April 22-24, 2003

Surface CMI Retraining

October 29-November 7, 2002

Underground Coal Compliance Specialists

October 22-31, 2002 January 7-16, 2003 April 8-17, 2003 July 15-24, 2003

Ventilation Specialists

December 17-19, 2002 September 16-18, 2003 November 4-6, 2003

SUPERVISORY TRAINING COAL AND METAL/NONMETAL

March 11-20, 2003 May 13-22, 2003 July 22-31, 2003

SCHEDULE OF COURSES

Alphabetically

Page
Accident Investigation Retraining Seminar98
Accident Prevention Techniques
Advanced Ventilation/Bleeder and Gob Ventilation
Systems
Annual Retraining for Impoundment Qualification 72
Blasting (Surface)
Blasting (Underground)
Coal Impoundment and Refuse Pile Inspection41
Electrical Hazards
Electrical Safety for Coal Miners
Electrical Safety for Metal/Nonmetal Miners 81
Explosion Prevention
Ground Control Hazards
Haulage (Surface)
Hazard Communication (HazCom) 82
Health Hazards
Hoists and Elevators83
Industrial Hygiene
Industrial Hygiene: Sampling for Respirable
Silica Dust and Noise
Inspector's Portable Applications for Laptops
(IPAL) Review (MNM and Coal) 46, 27
Instructor Training Workshop (Part 48)
Intermediate Toxicology
Introduction to Mining
Longwall Safety47

	Page
Microsoft Access 2002 – Advanced	70
Microsoft Access 2002 – Basic	68
Microsoft Access 2002 – Intermediate	69
Microsoft Excel 2002 – Basic	66
Microsoft Excel 2002 – Intermediate	67
Microsoft PowerPoint 2002	65
Microsoft Windows 2000/Microsoft Outlook 2002	63
Microsoft Word 2002	62
Mine Accident Investigation and Report Writing 2	28, 48
Mine Accident Investigation Techniques	88
Mine Blasting Safety and Application Seminar	99
Mine Construction, Maintenance, and Repairs Safety	89
Mine Construction, Maintenance, and Repairs Safety	
Workshop	. 100
Mine Elevator Inspection Program Training –	
Module I	
Mine Fire Control Seminar	
Mine Rescue Training	
Noise Hazards, Regulation, and Control	
Qualification for Impoundment Inspection	73
Respirable Coal Mine Dust Sampler Calibration/	- 4
Maintenance Certification	
Respirable Coal Mine Dust Sampling Certification	
Respirable Dust and Silica Sampling and Control	
Roof Control for Miners	
Roof Control Seminar	
Safe Practices Conference	
Surface Facilities and Coal Preparation	
Surface Haulage Safety Seminar	. 104
Tailings Dam and Waste Pile Inspection –	20
Metal/Nonmetal	29

Page	ļ
TapRooT® System Accident/Incident Investigation	
Training	
TRAM/National Mine Instructors Seminar	
Underground Diesel Equipment/Ventilation	
Underground Haulage, Transportation, and	
Machinery	
Underground Ventilation for Metal and Nonmetal	
Mines	

SCHEDULE OF COURSES By Date

OCTOBER 2002
October 14 - 18, 2002
g TRAM/National Mine Instructors Seminar 10/15-17/02
October 21 - 25, 2002
g Microsoft Access 2002 – Basic
NOVEMBER 2002
November 4 - 8, 2002
g Electrical Hazards
g Microsoft Excel 2002 – Basic
November 11 - 15, 2002
g Explosion Prevention Rescheduled 01/14-15/03
g Mine Construction, Maintenance, and
Repairs Safety
g Qualification for Impoundment Inspection 11/13/02
g Safe Practices Conference
November 18 - 22, 2002
g Ground Control Hazards
g Instructor Training Workshop (Part 48) 11/18-21/02
g Microsoft Word 2002
g Tailings Dam and Waste Pile Inspection –
Metal/Nonmetal

DECEMBER 2002 December 2 - 6, 2002 g Microsoft Access 2002 – Intermediate 12/03-05/02 g Mine Accident Investigation and Report **December 16 - 20, 2002 q** Annual Retraining for Impoundment g Noise Hazards, Regulation, and Control.... 12/17-19/02 **JANUARY 2003** January 6 - 10, 2003 g Advanced Ventilation/Bleeder and Gob

g Microsoft Excel 2002 – Intermediate 01/07-09/03

Investigation Training 01/14-16/03

g Microsoft Access 2002 – Advanced 01/28-30/03 g Electrical Safety for Metal/Nonmetal Miners . . 01/28-29/03 g Microsoft PowerPoint 2002. 01/28-30/03

g TapRoot® System Accident/Incident

g Mine Blasting Safety and Application

January 13 - 17, 2003

January 20 - 24, 2003

January 27 - 31, 2003

FEBRUARY 2003 February 10 - 14, 2003 g Microsoft Windows 2000/ g Qualification for Impoundment Inspection 02/13/03 February 17 - 21, 2003 g Accident Investigation Retraining Seminar . . 02/19-27/03 February 24 - 28, 2003 g Underground Haulage, Transportation, and **MARCH 2003** March 3 - 7, 2003 g Annual Retraining for Impoundment g Surface Haulage Safety Seminar......03/04-06/03 March 10 - 14, 2003 g Coal Impoundment and Refuse Pile g Inspector's Portable Applications for Laptops (IPAL) Review - Metal/Nonmetal. . 03/11-12/03 **g** Microsoft Excel 2002 – Basic 03/11-13/03 g Underground Diesel Equipment/ March 17 - 21, 2003 g Mine Accident Investigation and Report

March 24 - 28, 2003
g Inspector's Portable Applications for Laptops (IPAL) Review - Coal 03/25-26/03
APRIL 2003
March 31 - April 4, 2003
g Mine Construction, Maintenance, and Repairs Safety Workshop 04/01-03/03
April 7 - 11, 2003
g Microsoft Access 2002 – Intermediate 04/08-10/03 g Microsoft Windows 2000/
Microsoft Outlook 2002
April 14 - 18, 2003
g Instructor Training Workshop (Part 48) 04/14-17/03
April 21 - 25, 2003
g Electrical Safety for Coal Miners 04/22-24/03
g Hazard Communication (HazCom) 04/22/03
g Microsoft PowerPoint 200204/22-24/03
g TapRooT® System Accident/Incident
Investigation Training
MAY 2003
May 5 - 9, 2003
g Microsoft Excel 2002 – Intermediate 05/06-08/03
May 12 - 16, 2003
g Microsoft Access 2002 – Advanced 05/13-15/03
g Microsoft Word 2002
g Mine Accident Investigation and Report
Writing
Q Oualification for Impoundment Inspection 05/15/03

May	19 - 23, 2003
g]	Microsoft Excel 2002 – Basic
	Microsoft Windows 2000/
]	Microsoft Outlook 2002
May	26 - 30, 2003
g	Roof Control Seminar
JUN	E 2003
June	2 - 6, 2003
g]	Mine Construction, Maintenance, and
]	Repairs Safety
	Underground Diesel Equipment/
,	Ventilation
June	9 - 13, 2003
g	Microsoft Word 2002
June	16 - 20, 2003
g	Annual Retraining for Impoundment
	Qualification
	Electrical Safety for Metal/Nonmetal
	Miners
g	Mine Fire Control Seminar
June	23 - 27, 2003
	Coal Impoundment and Refuse Pile
	Inspection
g	TapRoot® System Accident/Incident Investigation Training
J	investigation Training
JUL	Y 2003
July	7 - 11, 2003
g]	Haulage (Surface)
_	Microsoft Access 2002 – Basic 07/08-10/03
_	Qualification for Impoundment Inspection 07/10/03
	1

July 14 - 18, 2003
g Industrial Hygiene07/15-17/03
g Microsoft Excel 2002 – Intermediate 07/15-17/03
g Microsoft PowerPoint 200207/15-17/03
g Mine Accident Investigation and Report
Writing
July 21 - 25, 2003
g Microsoft Word 2002
July 28 - August 1, 2003
g Longwall Safety
g Mine Elevator Inspection Program
Training – Module I 07/29-31/03
AUGUST 2003
August 4 - 8, 2003
g Microsoft Windows 2000/
Microsoft Outlook 2002
August 11 - 15, 2003
g Intermediate Toxicology 08/12-14/03
g Microsoft Word 2002
August 18 - 22, 2003
g Coal Impoundment and Refuse Pile
Inspection
g Microsoft Access 2002 – Intermediate 08/19-21/03
August 25 - 29, 2003
g Blasting (Surface)
g Instructor Training Workshop (Part 48) 08/25-28/03
g Introduction to Mining
g Surface Facilities and Coal Preparation 08/26-28/03
g surface i actitudes and court reparation 00/20-20/03

SEPTEMBER 2003

September 8 - 12, 2003	
g Annual Retraining for Impoundment Qualification	09/11/03
g Microsoft Word 2002	09/09-11/03
g Mine Accident Investigation Techniques	09/09-11/03
September 15 - 19, 2003	
g Microsoft Access 2002 – Advanced	09/16-18/03
g Mine Accident Investigation and Report	
Writing	09/16-25/03
September 22 - 26, 2003	
g Hoists and Elevators	09/23-25/03
g Respirable Coal Mine Dust Sampler	
Calibration/Maintenance Certification	09/24/03
g Respirable Coal Mine Dust Sampling	
Certification	09/23/03

SUGGESTION FORM FOR NEW COURSES

The National Mine Health and Safety Academy is committed to bring you the very best courses, seminars, and materials to meet your needs. To do this we need your help.

Please use the space below to let us know what you would like.

New courses or variations on existing courses:

Seminars:	
Materials:	
Area of interest: Circle those o	f interest.
Coal - Surface	Coal - Underground
Metal/Nonmetal - Surface	Metal/Nonmetal - Underground
Both	
Other (specify)	
Name	
Address	
Telephone	
(area code)	(area code)

Please complete this form and return to:

National Mine Health and Safety Academy ATTN: Department of Instructional Services 1301 Airport Road Beaver, West Virginia 25813-9426

OR

FAX: (304) 256-3247

ENROLLMENT FORM

Please complete this form and return to:

National Mine Health and Safety Academy ATTN: Student Services Branch 1301 Airport Road Beaver, West Virginia 25813-9426

 \mathbf{OR}

FAX to: (304) 256-3251

I plan to attend the		
	Name of Course)	
course on the following dates:		
Arrival Date:		
Departure Date:		
☐ I will ☐ I will not	need lodging on these dates.	
Name:		
Title:		
Organization:		
Address:		
City:		
State:	Zip Code:	
Telephone:	Fax:	
(area code)	(area code)	
Confirmation will be mailed or faxed back to you.		
Confirmed by:	Date:	

OTHER AVAILABLE CATALOGS

The Academy also publishes a **Catalog of Training Products for the Mining Industry**. To obtain a copy of the products catalog, or additional copies of this catalog, please complete this form and return to:

National Mine Health and Safety Academy ATTN: Mary Lord Department of Instructional Materials 1301 Airport Road Beaver, West Virginia 25813-9426

> CALL: (304) 256-3257 FAX: (304) 256-3368

 $\pmb{E\text{-MAIL:}} \quad \pmb{lord\text{-mary@msha.gov}}$

Please indicate the number of catalogs you are requesting:

(Number)		
	Catalog of Training Produ	cts for the Mining Industry
	Courses for MSHA and th	•
Name: _		
Title:		
	on:	
State:		Zip Code:
Telephone		Fax:

(area code)

(area code)